

CREATING A CROP MAZE WITH GPS

A crop maze is an attractive, unusual, and effective way to draw attention and visitors to a farm. It is also a good way to generate income if a farmer charges admission to the maze.

Creating a crop maze requires a design and careful planning. Designs for a maze can be fashioned from simple patterns or geometric shapes, or taken from photographs or other images. Mazes can be cut in almost any type of standing crop; however, corn is by far the most popular. Corn produces a thick wall of vegetation between the paths and is tall enough that people in the maze cannot see over it.

Mazes can be created from maps and drawings of fields using ordinary tools such as tape measures or measuring wheels, but while effective, these methods are time consuming. An alternative is to use a global positioning system (GPS) receiver and mapping software or geographic information system (GIS). GPS and GIS technology can greatly speed up and simplify the maze creation process.

Using GPS equipment and software to create a maze offers a farmer the ability to create elaborate designs that are well fitted to a field. Key factors to consider are:

- Size and shape of the field.
- Amount of detail in the maze design.
- Accuracy of GPS receivers used for maze layout.
- Availability of mapping software.

Field size and shape define the extent of the maze and the amount of detail it can contain. Large fields allow more features and details. Small fields are limited to fewer features or simpler designs.

The breadth of detail in the maze determines how accurate the layout must be. It also dictates the required accuracy of the GPS receiver used in the layout process. GPS equipment varies in accuracy, and the units that are available to a farmer or a designer may limit what can be accomplished.

Recreational GPS receivers are accurate to only about 10 meters. That means the position indicated by the receiver will be within a 10-meter radius of the true pinpoint position on a map. This limits their use to larger fields or to a design with minimal detail.

When equipped with WAAS (Wide Area Augmentation System) capability, some recreational GPS receivers are accurate to within 1 to 2 meters. WAAS is a free correction signal broadcast by the Federal Aviation Administration (FAA). Simple mazes in medium to large fields can be laid out effectively with WAAS-enabled GPS receivers. Agricultural receivers, or mapping grade receivers, can also be equipped with WAAS, which puts them in the same accuracy range as WAAS-equipped recreational receivers, and they often give more stable positions.

For much keener accuracy in agricultural receivers, many operators turn to differential correction, which will boost the accuracy to

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